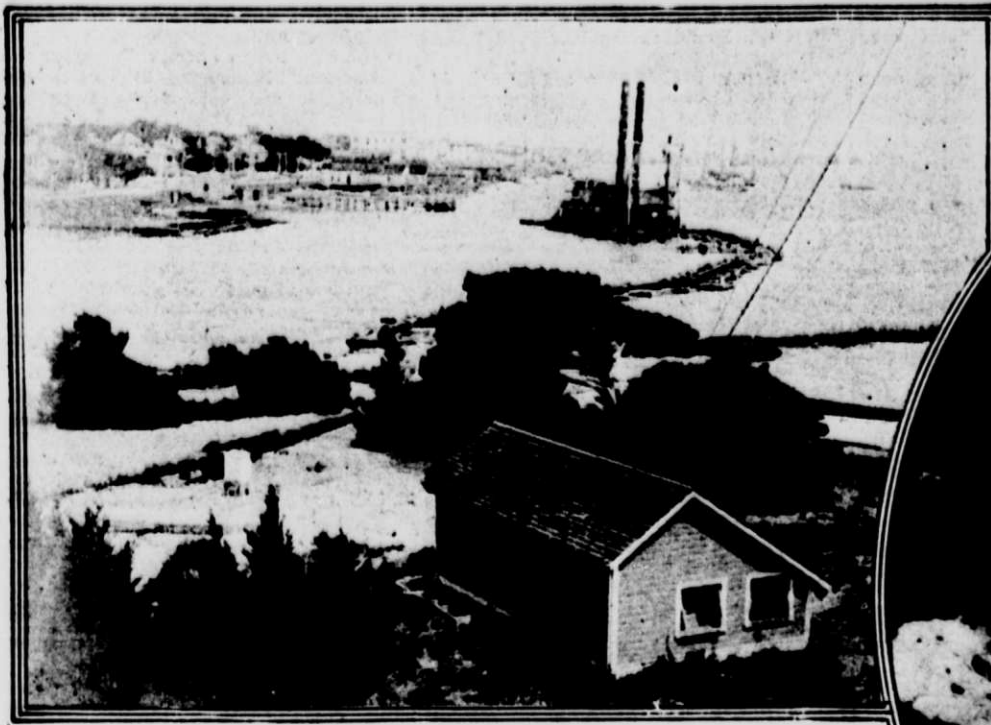


Ever Attempt Terrapin Farming? There Is a Chance to Earn Large Profits From Moderate Outlay in New Industry



Winter House for terrapin.

Uncle Sam Has Been Experimenting and Has Shown the Best Ways in Which They Can Be Made to Multiply

DOWN on the shores of the Chesapeake the residents have been reeling for generations in the epicure's particular delight, the native diamond back terrapin. This unchecked indulgence plus the insatiable demand for these delicacies elsewhere has pretty nearly exterminated these creatures. There was a time when the slaves and colored servants of the planters on the Maryland and Virginia shores of the bay were allowed of right so much diamond back flesh weekly. Then the terrapin was more bountiful than beef in the neighborhood.

The terrapin has to contend with a number of enemies until he is large enough to take care of himself, and then the only foe that he has to avoid is man. The latter has unthinkingly been doing his utmost to exhaust the supply. The story goes that a Northern visitor happened one day upon an indolent resident of "the Eastern Shore" who had every outward evidence of social decay except his air of superiority and a grandiose manner. He was down at the heel in more ways than one and his bodyguard, a lean but thoroughbred hound, was so thin that his bones were visible.

The resident was hospitable, but apologized because he could offer the stranger nothing more than corn pone and terrapin. He hadn't revenue enough for more of life's luxuries. The visitor, who had paid for terrapin stew in New York and knew full well the price, volunteered the suggestion that the Marylander send his terrapin to the metropolis, where a very profitable market awaited him. The retort to the hint was both characteristic and illuminating.

"My Gawd, suh, what I have then?" The Bureau of Fisheries has been studying the diamond back terrapin for nearly five years and down at Beaufort, N. C., the national authorities have

been engaged in the artificial propagation of these animals. As a result of the investigations there much has been learned of the life habits of the terrapin and of the best ways that they can be made to multiply for marketable purposes.

It is hoped in this way to stimulate a new industry and by encouraging terrapin farming greatly to increase the supply and bring this delicacy within the reach of the general public. Thirty-six dollars a dozen and more is what the gourmet has to pay for the living diamond back and the cost is a good deal higher by the time he settles his account with the hotel or restaurant boasting this attraction upon its bill of fare.

At Beaufort terrapin have been in the ponds for over four years, and the young that have been bred there have now reached the age of three years, a maturity which puts upon them the responsibility of taking care of themselves. Before this they have a number of enemies to avoid.

The common rat will eat both the turtle eggs and the young terrapin; it is said crows will do the same, and kingfishers and herons are looked upon with suspicion. In fact it is not yet certain that hungry adults won't feed on their diminutive relatives. Therefore in any terrapin farm care must be taken to safeguard the little ones from their alien foes and incidentally to separate them from their bigger kith and kin.

Salt water swamps with tidal basins are ideal places for terrapin farms, and all that is necessary is to provide a proper enclosure while leaving a sluiceway for the ebb and flow of the waters. If you are the possessor of something of this sort you may find it worth your while to note the details that follow. There must be some exposed sand for the better part of the time, for there it is the females lay their eggs and



Part of hatch of 1910 kept in wooden tank and being fed with fresh fish (the white spots in foreground).

both sexes can take a sunbath when so minded.

Terrapin for breeding purposes can generally be had from dealers, who in their turn buy them from the fishermen. The original outlay is apt to be considerable, but this is offset by the industry of the female. Opinions differ as to the total number of eggs the female lays during the season, which begins as soon as the weather becomes warm and lasts for several weeks. At Beaufort the earliest date on which laying has been observed is May 6 and the latest the end of July. It is commonly believed that only one set of eggs is deposited in a season, but some of the terrapin have been found to lay more than once. As a rule a nest contains eight or nine eggs, but as many as from twelve to sixteen have been found. The larger number being not unlikely the product of more than one female.

When ready to deposit her eggs the female selects a suitable location and prepares a nest by scooping out a jug shaped hole with her hind feet. The hole is about eight inches deep and five or six inches in diameter at the widest part. With this done the mother terrapin backs as far as possible into the hole and drops her eggs. Next she carefully replaces the sand, packs it down, conceals the spot by crawling back and forth over it and then goes away without more ado.

There is no reason to believe that she

ever revisits the spot or takes the slightest interest in her offspring after they have hatched. The nests should not be disturbed, because even the most careful handling will reduce the percentage of the hatch anywhere from 50 to 75 per cent. An unusually high tide that may flood the bed and keep the eggs covered with water for several days is almost certain to prove disastrous.

The first young terrapin may be expected toward the middle of August. They will remain above ground for only a short time, but during this time if there is an avenue of escape they are pretty sure to find it. To one familiar with only the adult animals the climbing ability of the young is astounding. They can ascend to the top of a rough board fence with ease, and by selecting a corner in which to cling they can make their way over a concrete wall two or three feet high. When found crawling about the young should be picked up and placed in tubs or tanks where they can be kept in the shade and provided with water and food.

One result of artificial propagation has been significant. Under natural conditions the young terrapin does not feed in all probability from the time he is hatched until the next spring, and his growth during this period is well nigh imperceptible. On the other hand, if hibernation is prevented and food is supplied the growth is steady.

Furthermore, the young ones which are fed during their first winter have a start which enables them to continue to grow more rapidly during the following summer, so that the lead they have the spring following their hatching over the young ones which hibernated is increased, and by the time the end of the first year is reached they will be on the average considerably larger than their mates that have wintered according to habit.

When feeding the young through the winter a suitable building must be available in which the temperature can be maintained at about 70 or 80 degrees through the coldest weather. At Beaufort such a building houses 2,000 terrapin youngsters. Finely chopped crabs or minced fish are relished by the young diamondbacks. The food should never be allowed to become tainted nor the water of their winter quarters permitted to grow foul.

In choosing breeders the mother terrapin should measure quite six inches along the middle of the lower shell and the male should be as near to four inches long as possible. Females six inches long are believed to have arrived at their period of full productivity, and those more than six inches long command an unduly high price. The males, which may be distinguished by their longer and larger tail and relatively smaller head, rarely reach a length greater than four inches. At



Diamond back terrapin pound—concrete sides.

Government Has Proved Diamond Backs Can Be Raised Artificially—Epicures' Particular Delight Fetch High Prices

least ten square feet should be allowed for each adult terrapin when placed within an enclosure.

In their turn the adult terrapin need attention just as do the young ones, and care must be taken to give them proper food and enough of it at fairly regular intervals. At the beginning of cold weather the diamondbacks become more and more inactive and finally burrow into the mud and hibernate until warm weather comes again. This period of hibernation depends entirely upon the temperature, and in the late fall and the early spring, or even upon warm days in the winter, a few individuals will come out and crawl about.

Then watchfulness is required lest a sudden change so benumb them that they may be frozen and unable to return to their winter quarters. Hibernated diamondbacks and even those apparently frozen to death will probably suffer no serious harm if they are promptly put back in their beds. The care of the adult terrapin presents very little difficulty, and in suitable localities the cost of feeding is so small as to be almost negligible. If supplies are reasonably close at hand and the pen is well arranged a man should be able to care for several thousands of the animals.

One of the interesting disclosures of the work at Beaufort has been the rate of growth. During their first summer, if properly cared for, the youngsters will add a little over an inch to their length and the next spring will emerge from hibernation slightly more than two inches long. During the second summer another addition of about an inch is made to their length and they will emerge from their third hibernation about three inches long. These measurements include both sexes.

Up to the beginning of their third summer it is rarely possible to distinguish the sexes with any degree of certainty, but as the season progresses

the differences become evident and the females begin to show increased growth. By the end of this season the females will average about four and a quarter inches long, while the males will run something like three and three-quarters inches. During the summer, therefore, the males add on an average three-quarters of an inch to their length, while the cows do a full half inch better.

The males, or bulls, as they are known to the trade, are of little value and should be got rid of as soon as they can be positively identified. The cows are the really delicate and delicious members of the family and the ones that bring the highest prices in the market.

If you have tried your hand at chicken farming and have not found it profitable here is a new field for your industry, and according to the Bureau of Fisheries one that can be made very profitable at a moderate outlay, combined with a reasonable amount of care and intelligent supervision. If you want the terrapin you raise to net you the highest price don't forget to feed them on crabs, oysters, fish and celery to improve their flavor.

The Bureau of Fisheries does not intend to distribute terrapin eggs, because these are too easily damaged or rendered infertile by handling. Instead at Beaufort and probably other places where there are experimental stations the terrapin will be propagated to a certain age and then shipped to suitable waters to carry on nature's work of multiplying or for impounding and cultivation within suitable farms or reservations. If your palate knows the delights of stewed terrapin this project should make your mouth water expectantly. If you have not yet enjoyed such a feast you have much to look forward to and the Bureau of Fisheries intends to help you toward realization.

Jean Henri Fabre, French Homer of Insect World, Has Endured Miseries for Sake of Science

Poet and Man of Science, He Has Devoted Fifty Years of His Life to the Study of Insects—Known as Discoverer of New World.

JEAN HENRI FABRE has been called the Homer of the insect world. For fifty years he has studied insects and their ways more closely and continuously perhaps than any other man. Add to this the fact that he is a poet as well as a man of science, that he writes with peculiar charm, and it will be understood why his books about insects have aroused the enthusiasm of such men as Maurice Maeterlinck and Frederic Mistral.

They refer to him as the discoverer of a new world. He has been compared to La Fontaine, whose fables give evidence of his love for beasts. Their writings show the same freshness, simplicity and charm. Darwin was struck by the patience and ingenuity exhibited by M. Fabre in penetrating the secrets of insects, and in the "Origin of Species" he refers to him as an inimitable observer. An English translation of M. Fabre's book "The Life of a Spider" has lately been published. He was born in the south of France, was the son of poor parents and his whole life has been one of uninterrupted labor.

by serving as a choir boy. He won a scholarship at the normal school at Avignon and became a teacher, finally rising to the grade of professor.

It was while he was attached to the lycee at Avignon that he came across the entomological works of Leon Dufour, and thereafter the course of his life was changed. He saw how incomplete was the state of the science of entomology and he saw opened to him a magnificent field of study. Thereafter as soon as he was able he gave up teaching, devoted himself to the study of insects and endured many miseries for the sake of science.

He went to live in a cottage with rose tinted walls and green blinds at the little village of Serignan, on the road from



Jean Henri Fabre, the Homer of the insect world.

ingenuity guided by sympathy in studying insects. Observation and study in the laboratory did not tell him what he wanted to know. It was necessary for him to watch the free insects in their natural environment.

What he saw he described sympathetically, poetically, vividly. His writ-

ings interest the general reader as much as the entomologist. He described with equal care the industry of the bee and

Simple and Charming Writer, His Works Have Aroused Enthusiasm Among Famous Men—Propose to Erect Statue in His Honor at Avignon.

the wickedness of the preying mantis, that fierce insect which devours its wives and charms its victims with what the entomologists call its spectral pose. Maeterlinck wrote of him: "He devoted to the task of surprising their little secrets, which are the counterpart of the greatest mysteries, fifty years of an existence solitary, misunderstood; joy above all others. Little truths, you will say, those which are offered to us by the ways of a spider or a cricket. There are no little truths; there exists but one, of which the mirror to our uncertain eyes seems broken, but each fragment of it, whether it reflects the evolution of a star or the flight of a bee, contains the supreme law."

M. Fabre is now 90. Honors have come to him. His fame is widespread. He is no longer able to pursue his studies. He sits day after day smoking his pipe in the dining room of his cottage.

Not long ago Frederic Mistral, the

famous octogenarian poet of Provence made an appeal in his behalf on the ground that he was in a lamentable condition of undeserved poverty. This M. Fabre denied. The French Government granted the aged entomologist a literary pension of \$300 a year. Later still the Academy of Sciences of France awarded him a prize of the value of 4,000 francs. A Minister of State has paid an official visit to him and it is proposed to erect a statue in his honor at Avignon.

Fight between two one-winged mantis.

As a lad he taught himself to read at sight by the light of a blazing pine knot. In school he paid his tuition fees

Orange to Valreas. For years the neighboring peasants knew little of him. Then one day they learned that a great scholar

He has used incredible patience and

Fight between a grasshopper and a winged mantis.

poor, often approaching want, but illumined each day by the joy which is brought by a truth, which is the human

ing interest the general reader as much as the entomologist. He described with equal care the industry of the bee and